those of a normal hen. The sequence of events could, at that time up to the end of November, reasonably have been ascribed to the onset of ovarian atrophy with presumably the development of a compensatory right-sided gonad.

Subsequent events however, caused one to think that the problem was actually not as simple and straightforward as this.

The onset of symptoms of progressive ill-health, lasting a matter of six weeks and four days in its terminal phase confirmed that some other factor than that of a simple failure of ovarian function and its consequences was operative.

The gross morbid anatomy has already been described and the microscopy has confirmed the state of ovarian atrophy with invasion of the degenerated ovarian stroma with adrenal cortical cells, but has added a further puzzle in that an examination of the sections of the main lesion presented the characters, as determined by Dr. Keith Randall, as a "multinucleate tuberculoid granuloma." This type of reaction is associated with the presence of a foreign body, although such was not found at autopsy, or possibly some infection that must now remain unidentified. One is left cogitating therefore as to whether the two striking features, *viz.* the pronounced masculinisation shown by this bird and its severe and fatal wasting illness, in this case were in effect quite unconnected and their co-existence entirely fortuitous.

SUMMARY

A case of intersexuality, believed to be due to supra-renal virilism, in a female Silver Pheasant is described and some aspects of this condition in birds is discussed in this context.

The histopathology presented certain unusual features.

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To Dr. Jeffery Harrison I am, as usual, indebted for much useful discussion and comment on this and similar cases, and to Dr. Pamela Harrison for the photograph showing this remarkable specimen.

Reference:

McGowan, J. P., 1936. Supra-renal "virilism" in a Domestic Hen, its possible significance. *Quarterly Journal of Microscopical Science*. XIII, 4: 377–382.

A probable intrageneric hybrid pewee (Tyrannidae: *Contopus*) from México

by Allan R. Phillips and Lester L. Short, Jr.

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A peculiar male tyrant flycatcher ("pewee") specimen obtained by W. B. Richardson on 11th May, 1897 at San Andrés, near San Cristóbal de Las Casas, Chiapas, was recently found by the senior author in a tray of

Contopus musicus (Swainson) (also called *C. pertinax* Cabanis and Heine, addendum below) at the British Museum (Natural History). This specimen (British Museum number 99.4.20.2030, Salvin and Godman collection) was at once determined to be too small and too short-winged for C. *musicus*, as well as slightly "off-colour" for that species. Superficially, it appears to be a pewee the size and shape of *Contopus sordidulus* Sclater, but the colour of *C. musicus*. Data for this specimen are compared in table 1 with data from comparably plumaged specimens of *C. m. musicus* and *C. s. sordidulus*, the races of these two pewees that supposedly breed in Chiapas. We are aware that there is a possibility that this bird was a migrant, as the migration of *C. sordidulus* extends well into June (Phillips, Marshall and Monson, 1964, p. 91). Those unfamiliar with the Tyrannidae might indeed wonder how a strange specimen, possibly a migrant, can with confidence be placed within a genus of this difficult family. Fortunately, the extreme pointed and relatively long wings of *Contopus* (including *Nuttallornis* Ridgway) are distinctive, as is also the peculiar olive-grey and oleaginous ventral coloration of *C. musicus*. The fact that the latter breeds nowhere sympatrically with *C. virens* (Linné) simplifies the problem further and *C. mesoleucus* (W. Deppe) [= "*Nuttallornis*" *borealis* (Swainson)] is too large to be one of the parents. Thus, granting the hybridity of the specimen, the parental species are *C. musicus* and *C. sordidulus*. From the measurements, it is clear that the specimen resembles *C. sordidulus* in size and shape, except for its longer wings (longer, indeed, than the wings of any *C. sordidulus* or *C. virens* specimens we have ever examined) and longer tail (a few western North American *C. sordidulus* have tails attaining a length of 71 mm.

Table 1

Measurement in millimetres of *Contopus s. sordidulus*, *Contopus musicus* and hybrid*

Character	*sordidulus*	*hybrid*	*musicus*
Wing Length (chord)	78.5 — 87.4	92.2	101 — 113
Tail Length	58.3 — 64.2	70.6	80.5 — 92.2
Bill Length (from nostril)	9.3 — 10.7	9.3	12.3 — 15.9
Bill Width (at nostril)	5.9 — 6.7	6.5	7.3 — 9.6
Tarsus	12.4 — 13.4	13.5	16.3 — 19.0
Hind Toe + Claw	8.8 — 9.5	9.5	12.4 — 13.5
Largest Primary Less P.6	11.7 — 15.4	13.1	7.5 — 10.9
Tail: Wing Ratio	0.69 — 0.76	0.77	0.80 — 0.86
Tarsus / Wing Less Tail	0.55 — 0.64	0.63	0.80 — 1.21
Tail Clear †	24.5 — 33.5	25.8	43.5 — 54.0

*Comparably plumaged males of *C. s. soridulus* (N = 15), and males of *C. m. musicus* (N = 10) were used for those characters in which wear is a factor. Additional males of *C. s. sordidulus*, and *C. m. musicus* and *C.* m. *pallidiventris* were also used for other characters.

†This is the measurement of the distance between the tip of the tail and the longest under tail-covert.

It is in various colour characters that the intermediacy and strong *musicus* influence of the specimen are evident. The following notes are largely based on a comparison of the specimen with comparably plumaged male specimens of *C. m. musicus* (N = 12), *C. m. pallidiventris* (N = 10)

and *C. sordidulus sordidulus* (N = 10), although additional specimens of these and other forms of *C. sordidulus* were considered for temporal and other variation.

Ventral Coloration.—In the totality of its ventral coloration the specimen closely approaches the range of variation of *C. musicus*, and is well outside that of *C. sordidulus*. Its throat is paler than that of most *C. musicus* but not as white as that of any *C. sordidulus*, while its breast is olive-grey with conspicuous yellowish, like *musicus*, not the clearer or slightly brownish grey of *sordidulus*. Posteriorly, the putative hybrid resembles *C. musicus pallidiventris;* that is, its abdomen is intermediate in colour between that of the yellowish, buffy-olive of *C. musicus* and the much paler (whitish) abdomen of *C. sordidulus*. Its under tail-coverts lack the ochre-buff of *musicus*, matching the white-edged feathering of that region in *sordidulus*. Thus, only in the colour of the under tail-coverts and the abdomen does the ventral coloration of this specimen differ from *C. m. musicus*.

Dorsal Coloration.—As in its ventral coloration, the colour of the dorsum in the presumed hybrid is nearest that of *C. musicus*. Only in its upper tail-coverts is there an approach to *C. sordidulus*, in that they are greyer and less green than those of *C. musicus*. Otherwise, the upper-parts of this specimen are olive-grey, more greenish and less brown than in *C. sordidulus*, and as in *C. musicus*.

Wing Coloration.—The wing bars and edges of the tertial feathers are clear whitish in this specimen, rather than duskier with duller white edges as in *C. musicus*. The under side of the bend of its wings appears nearest *sordidulus;* the feathers are greyish, with some of the buffy-ochre that broadly edges these coverts, as well as the axillar feathers of *musicus*, and only narrowly edges the same feathers of *sordidulus*.

Shape of the Wings.—The 10th primary of the bird in question is longer (by 5.1 mm.) than the 6th primary, as in *C. sordidulus* (in which P 10 averages 4.0 mm. greater than P 6). In *C. musicus* P 10 is shorter (by an average of 3.5 mm.) than P 6.

Colour of Lower Mandible.—Although probably subject to post-mortem colour changes, the specimen's bill is dusky, as in *C. sordidulus* and not pale yellowish as in old specimens of *C. musicus*.

Rictal Bristles.—*C. m. musicus* has long rictal bristles that can be appressed forward to cause them to extend beyond the nostrils. Those of *C. s. sordidulus* and the hybrid can be extended only as far as the nostrils.

Crest Shape.—The crest of *C. musicus* is composed of elongate, narrow feathers, while that of *C. sordidulus* has much shorter feathers of normal width throughout. The putative hybrid has crest feathers only slightly longer than those of *C. sordidulus*, but they are distinctly narrowed toward their tips. This apparently represents a tendency toward the condition found in *C. musicus*.

We conclude that this specimen exceeds the extreme range of variation of *C. sordidulus*, so that it cannot be considered a variant of that species. The specimen's tendencies toward *C. musicus*, including strong colour resemblances and a few mensural tendencies, can best be accounted for by regarding it as a hybrid product of a cross between individuals of *C. musicus* and *C. sordidulus*.

The occurrence of this cross bears out a prediction the junior author

(*in* Short and Burleigh, 1965) has previously made concerning the likelihood of intrageneric hybridization within *Contopus*. Of interest is the difference in size between *C. musicus* and *C. sordidulus*. This is but weakly reflected in wing length, because of the relatively long, pointed wings of the highly migratory *C. sordidulus*. Weights present a better picture of their difference in size. In Nayarit, whence we have the most saitisfactory data on weight of the forms in question, three males of *sordidulus* weighed 13.3 to 13.8 gm. (average 13.6 gm.) and two females weighed 11.9 and 12.0 gm.; against these, three males of *musicus* weighed 26.9 to 28.2 gm. (average 27.6 gm.), and three females weighed 24.2 to 25.3 gm. (average 24.8 gm.). Weights of these species elsewhere are close to these: three other *musicus* vary from 25.3 to 28.3 gm., and 20 *sordidulus* (including some larger specimens from the western United States) weighed 11.5 to 15.5 gm. Thus, *C. musicus* weighs about twice as much as the smaller species, besides differing rather markedly in its longer crest, orangish mandible, and its peculiarly coloured underparts. Indeed the superficial differences between the parental species in colour and size are greater in this case than in the intergeneric hybrid reported by Short and Burleigh (*op. cit.*).

We express our gratitude to the authorities of the British Museum (Natural History) for the opportunity to study and compare this specimen at leisure, and to the Frank M. Chapman Memorial Committee for helping to support Phillips' research in London.

Addendum by Phillips: As a name for *C. pertinax auct.*, *Tyrannula musica* Swainson has many years' priority. The latter name has been adopted by Phillips (MS; and in Phillips, Marshall and Monson, *op. cit.*) because both the description and the name itself apply so clearly to this species. In 1966 Phillips was enabled to re-discover Swainson's type in the Cambridge University Museum, through the courtesy of C. W. Benson. Like all of Swainson's types, this one had not been so marked by early ornithologists, and in fact it had been overlooked by all except Salvin and Godman (1889), who unfortunately failed to mention its presence in the Cambridge University Museum collection. I am unable to account for Hellmayr's (in Cory and Hellmayr, 1927) inability to recognize Swainson's descriptions of both *T. musica* and *T. pusilla* (see Swainson, 1827; and Swainson and Richardson, 1831).

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Seafowl observed on a voyage, Cape Town to Southampton, 24th January to 5th February, 1968

by H. A. Britton and P. L. Britton

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The format of this paper follows Pitman (*Bull. B.O.C.* 87 (7), October, 1967) very closely, as that paper described the birds seen on a similar